

## **REMARKS**

This is a full and timely response to the outstanding non-final Office Action mailed December 18, 2007. Upon entry of the amendments in this response, claims 1, 3 – 9, 11 – 15, and 22 – 29 remain pending. In particular, Applicant adds claims 22 – 29, amends claims 1, 3 – 9, and 11 – 15, and cancels claim 10 without prejudice, waiver, or disclaimer. Applicant cancels claim 10 merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicant reserves the right to pursue the subject matter of this canceled claim in a continuing application, if Applicant so chooses, and does not intend to dedicate the canceled subject matter to the public. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

### **I. Rejections Under 35 U.S.C. §112**

The Office Action indicates that claims 1 and 3 – 15 stand rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant amends claims 1, 3 – 9, and 11 – 15, and cancels claim 10, as indicated above and submits that these claims, as amended, meet the requirements of 35 U.S.C. §112.

### **II. Rejections Under 35 U.S.C. §103**

#### **A. Claim 1 is Allowable Over *Oulu* in view of *Johnson***

The Office Action indicates that claim 1 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent Number 6,792,460 (“*Oulu*”) in view of “The Application Response Measurement (ARM API, Version 2), 1997 by Mark Johnson (“*Johnson*”). Applicant respectfully traverses this rejection for at least the reason that *Oulu* in view of *Johnson* fails to disclose, teach, or suggest all of the elements of claim 1. More specifically, claim 1 recites:

A method of monitoring response time of a function associated with a software component, comprising:

operating on a bytecode representation of a function to be instrumented by inserting an instrumentation code in the bytecode representation of the function without modifying respective source code of the function and while classes of the function are being loaded for execution and ***incorporating instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine***;

generating a call to an Application Response Measurement (ARM) agent to cause the ARM agent to effect generation of a start time marker upon start of execution of the function and a stop time marker upon completion of execution of the function, wherein the ARM agent is one of a plurality of agents of an ARM protocol; and

utilizing the start and stop time markers to determine a response time of the function.

***(Emphasis added)***

Applicant respectfully submits that claim 1, as amended, is allowable over the cited art for at least the reason that neither *Oulu* nor *Johnson*, alone or in combination, discloses, teaches, or suggests a “method of monitoring response time of a function associated with a software component, comprising... operating on a bytecode representation of a function to be instrumented by inserting an instrumentation code in the bytecode representation of the function without modifying respective source code of the function and while classes of the function are being loaded for execution and ***incorporating instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine***” as recited in claim 1, as amended. More specifically, *Oulu* discloses a “probe that runs on an application server initially instruments these application components (preferably at component load time) to add code” (column 1, line 43). *Oulu* further discloses “[i]f, at load time, the probe 122 (code instrumentation component 610) determines that the class source 602 is to be monitored, the probe instruments the class source by adding calls to the probe’s ‘start’ and ‘end’ methods... within the class source” (column 13, line 16).

As illustrated in these passages, *Oulu* only appears to teach implementing application components at a component load time and determining a class source to be monitored at load

time. *Oulu*, however, fails to disclose “**incorporating instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine**” as recited in claim 1, as amended. Additionally, *Johnson* fails to overcome the deficiencies of *Oulu*. For at least these reasons, claim 1, as amended, is allowable.

**B. Claim 13 is Allowable Over *Oulu* in view of *Johnson***

The Office Action indicates that claim 13 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent Number 6,792,460 (“*Oulu*”) in view of “The Application Response Measurement (ARM API, Version 2), 1997 by Mark Johnson (“*Johnson*”). Applicant respectfully traverses this rejection for at least the reason that *Oulu* in view of *Johnson* fails to disclose, teach, or suggest all of the elements of claim 13. More specifically, claim 13 recites:

A system comprising;  
a memory component; and  
a processor configured to monitor a response time of a function associated with a software component, the processor configured to implement:  
an instrumentation engine for operating on a bytecode representation of a function to be instrumented by inserting instrumentation code in the bytecode representation of the function without modifying respective source code of the function and while classes of the function are being loaded for execution, the instrumentation code effecting generation of a start time marker and a stop time marker upon resumption and completion, respectively, of the function, **the instrumentation code further configured to incorporate instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine;**  
an interface module being invoked by the instrumentation code upon start and completion of the function;  
an application response measurement (ARM) agent in communication with the interface module;  
wherein the interface module, upon invocation by the instrumentation code, calls the ARM agent to cause generation of the start and stop time markers by the ARM agent, and wherein the ARM agent is one of a plurality of agents of an ARM protocol; and  
an analysis and presentation module in communication with the ARM agent for presenting the response time to a user and/or storing the response time in a database.

**(Emphasis added)**

Applicant respectfully submits that claim 13, as amended, is allowable over the cited art for at least the reason that neither *Oulu* nor *Johnson*, alone or in combination, discloses, teaches, or suggests a “system comprising... a processor configured to monitor a response time of a function associated with a software component, the processor configured to implement... an instrumentation engine for operating on a bytecode representation of a function to be instrumented by inserting instrumentation code in the bytecode representation of the function without modifying respective source code of the function and while classes of the function are being loaded for execution, the instrumentation code effecting generation of a start time marker and a stop time marker upon resumption and completion, respectively, of the function, ***the instrumentation code further configured to incorporate instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine***” as recited in claim 13, as amended. More specifically, *Oulu* discloses a “probe that runs on an application server initially instruments these application components (preferably at component load time) to add code” (column 1, line 43). *Oulu* further discloses “[i]f, at load time, the probe 122 (code instrumentation component 610) determines that the class source 602 is to be monitored, the probe instruments the class source by adding calls to the probe’s ‘start’ and ‘end’ methods... within the class source” (column 13, line 16).

As illustrated in these passages, *Oulu* only appears to teach implementing application components at a component load time and determining a class source to be monitored at load time. *Oulu*, however, fails to disclose “***the instrumentation code further configured to incorporate instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine***” as recited in claim 13, as amended. Additionally, *Johnson* fails to overcome the deficiencies of *Oulu*. For at least these reasons, claim 13, as amended, is allowable.

**C. Claims 3 – 9, 11 – 12, and 14 – 15 are Allowable Over *Oulu* in view of *Johnson***

The Office Action indicates that claims 3 – 9, 11 – 12, and 14 – 15 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent Number 6,792,460 (“*Oulu*”) in view of “The Application Response Measurement (ARM API, Version 2), 1997 by Mark Johnson (“*Johnson*”). Applicant respectfully traverses this rejection for at least the reason that *Oulu* in view of *Johnson* fails to disclose, teach, or suggest all of the elements of claim 3 – 9, 11 – 12, and 14 -15. More specifically, dependent claims 3 – 9 and 11 – 12 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 1. Dependent claims 14 – 15 are believed to be allowable for at least the reason that they depend from allowable independent claim 13. *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

In addition, while the Office Action asserts that such a traversal of dependent claims amounts to a violation of 37 C.F.R. §1.111(b), Applicant disagrees. 37 C.F.R. §1.111(b) states “the reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references.” Applicant submits that, as is evident, dependent claims include all the elements of the independent claim from which they depend. Accordingly, any argument presented with regard to the patentability of an independent claim will be applied to the corresponding dependent claim. Consequently, all claims have been specifically addressed, pursuant to 37 C.F.R. §1.111(b).

**III. New Claims Are Allowable**

**A. New Claim 22 is Allowable**

In addition, Applicant adds new claim 22. New claim 22 is allowable for at least the reason that the cited art fails to disclose, teach, or suggest a “system of monitoring response time

of a function associated with a software component, comprising... means for operating on a bytecode representation of a function to be instrumented by inserting an instrumentation code in the bytecode representation of the function without modifying respective source code of the function and while classes of the function are being loaded for execution and ***incorporating instrumentation hooks into the bytecode representation prior to loading and initialization of a class containing the function by a virtual machine***” as recited in new claim 22.

**B. New Claims 23 – 29 are Allowable**

Further, Applicant adds new claims 23 – 29. New claims 23 – 29 are allowable for at least the reason that these claims depend from allowable independent claim 22. *In re Fine, Minnesota Mining and Mfg.Co. v. Chemque, Inc.*, 303 F.3d 1294, 1299 (Fed. Cir. 2002).

## **CONCLUSION**

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and Official Notice, or statements interpreted similarly, should not be considered well-known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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